

**NITRATE-N + NITRITE-N IN WASTEWATER AND DRINKING WATER
SYSTEAS EASY (1 REAGENT) REVISION 1 (2/4/2009)**

Facility Name: _____ VELAP ID _____

Assessor Name: _____ Analyst Name: _____ Inspection Date _____

Relevant Aspect of Standards	Method Reference	Y	N	N/A	Comments
Records Examined: SOP Number/ Revision/ Date _____ Analyst: _____					
Sample ID: _____ Date of Sample Preparation: _____ Date of Analysis: _____					
1. Are samples checked for residual chlorine and is it removed using sodium thiosulfate if present?	Systea Methodology (SM) SM 4.0				
2. Are working standards prepared daily?	SM 7.2.4				
3. Is each analytical batch (of 10 or fewer samples) accompanied by a blank, LCS, MS and MSD?	SMS 9.1.7				
4. Is the MDL less than or equal to 0.011mg/L (40CFR 136, Appendix B)?	SM 9.2.1				
5. Are a minimum of 10% of all samples spiked in duplicate?	SM 9.3				
6. Are compliance samples spiked at the regulatory limit or 1-5x higher than the background concentration of the sample, whichever is higher [Non-compliance samples may be spiked at the LCS concentration or 1-5x higher than the background concentration of the sample, whichever is higher]?	SM 9.3.1.1 and 2				
7. Does the calibration curve include a minimum of 4 standards and a blank with a correlation coefficient greater than 0.995 (<i>should</i>)?	SM 10.2				
8. Were the spike recoveries within $\pm 10\%$ and the RPD of the duplicates less than 20% (the latter is <i>should</i>)?	SM 9.3.4 and 9.3.7				
9. Are method precision and accuracy records maintained and updated on a regular basis (<i>should</i>)?	SM 9.3.8				
10. Is the laboratory reagent water blank subjected to the exact same procedural steps as the samples and evaluated to be less than the MDL?	SM 9.4.1 and 2				
11. Is the calibration verified using a calibration standard at the beginning and end of each analytical batch and after every 14 or fewer measurements?	SM 9.5				
12. Is the calibration standard verified to be within $\pm 10\%$ of the true value? (The lab <i>should</i> maintain graphic representation [e.g. control charts] of continued lab performance and develop a statement of lab data quality)	SM 9.5 and 9.6.3				

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13. Were results reported to three significant figures for concentrations above the MDL (Do not report results below the MDL unless required by permit)?	SM 12.0				
14. For nitrate in drinking water, are samples preserved at 4°C and analyzed within 48 hours of collection unless the sample is chlorinated? If chlorinated, analyze within 14 days.	40CFR141.23.k(2) (SM 8.1.1)				
15. For nitrite in drinking water, are samples preserved at 4°C and analyzed within 48 hours?	40CFR141.23.k(2) (SM 8.1.2)				
16. For nitrate + nitrite in drinking water, are samples preserved by acidifying to pH<2 with sulfuric acid and analyzed within 28 days?	40CFR141.23.k(2) (SM 8.1.3)				
17. For nitrate in nonpotable water, are samples preserved at ≤6°C and analyzed within 48 hours?	40CFR136.3 Table 1I (SM 8.2.1)				
18. For nitrite in nonpotable water, are samples preserved at ≤6°C and analyzed within 48 hours?	40CFR136.3 Table 1I (SM 8.2.1)				
19. For nitrate + nitrite in nonpotable water, are samples acidified to pH<2 with sulfuric acid, preserved at ≤6°C, and analyzed within 28 days?	40CFR136.3 Table 1I (SM 8.2)				

Notes/Comments: